

PTO/SB/08A (08-03)

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Complete if Known

Sheet	1	of	3
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Application Number	09/881,628
Filing Date	06/13/2001
First Named Inventor	Enrique Musoll
Art Unit	2684
Examiner Name	Wellington Chin
Attorney Docket Number	P3826

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
Km		US- 8088745 A *	07-11-2000	Bertagna et al.	
Km		US- 6157955 A *	12-05-2000	Narad et al.	
Km		US- 6169745 B1 *	01-02-2001	Liu et al.	
Km		US- 6226680 B1 *	05-01-2001	Boucher et al.	
Km		US- 5918050 A *	06-29-1999	Rosenthal et al.	
Km		US- 6223274 B1 *	04-24-2001	Cathoor et al.	
Km		US- 6023738 A *	02-08-2000	Priem et al.	
Km		US- 5659797 A *	08-19-1997	Zandveld et al.	
Km		US- 6070202 A *	05-30-2000	Minkoff et al.	
Km		US- 6247105 B1 *	06-12-2001	Goldstein et al.	
Km		US- 5978893 A *	11-02-1999	Bakshi et al.	
Km		US- 5784899 A *	07-21-1998	McMahon et al.	
Km		US- 5634015 A *	05-27-1997	Chang et al.	
Km		US- 5023776 A *	06-11-1991	Gregor, Steven	
Km		US- 4942518 A *	07-17-1990	Weatherford et al.	
Km		US- 4707784 A *	11-17-1987	Ryan et al.	
Km		US- 6009516 A *	12-28-1999	Steiss et al.	
Km		US- 5812810 A *	09-22-1998	Sager, David	
Km		US- 5987578 A *	11-16-1999	Butcher, Lawrence	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶

Examiner Signature	<i>Musoll</i>	Date Considered	9/15/05
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* References not provided under § 1.98

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 2 of 3

Complete if Known

Application Number	09/881,628
Filing Date	06/13/2001
First Named Inventor	Enrique Musoli
Art Unit	2864
Examiner Name	Wellington Chin
Attorney Docket Number	P3826

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
KM		US- 5471598 A *	11-28-1995	Quattromani et al.	
KM		US- 6263452 B1 *	07-17-2001	Jewett et al.	
KM		US- 5978570 A *	11-02-1999	Hillis, W. Daniel	
KM		US- 6073251 A *	06-06-2000	Jewett et al.	
KM		US- 6381242 B1 *	04-30-2002	Maher, III et al.	
KM		US- 5798966 A *	08-18-1998	Simcoe et al.	
KM		US- 5291481 A *	03-01-1994	Doshi et al.	
KM		US- 5121383 A *	06-09-1992	Golestani, S. Jamaloddin	
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		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Complete if Known			
		Application Number	09/881,828		
		Filing Date	06/13/2001		
		First Named Inventor	Enrique Musoli		
		Art Unit	2664		
		Examiner Name	Wellington Chin		
Sheet	3	of	3	Attorney Docket Number	P3825

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
KM		* KNUTH, DONALD E., "The Art of Computer Programming, Third Edition, Volume 1, Fundamental Algorithms", "Sec. 2.6 Dynamic Storage Allocation", 1997, pp 435-458, Addison-Wesley, US	
KM		* DIEFENDORFF, Keith, K7 Challenges Intel, Microprocessor Report, October 26, 1998, Vol. 12, No. 14, US	

Examiner Signature	<i>Mark J. [Signature]</i>	Date Considered	9/15/05
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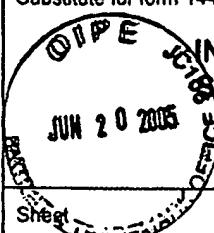
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 1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.
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Substitute for form 1449-PTO			Complete if Known	
 INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)			Application Number	09/881628
			Filing Date	06/13/01
			First Named Inventor	Enric Musoll
			Art Unit	2661
			Examiner Name	
Sheet 1 of 4	Attorney Docket Number		MIPS.0174-00-US	

Examiner Initials*	Cite No.†	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear
		Number-Kind Code² (if known)			
KM		4200927	04-29-1980	Huges et al.	
KM		5708814	1-13-1998	Short et al.	
KM		5724565	03-03-1998	Dubey et al.	
KM		5784649	07-21-1998	Begur et al.	
KM		6151644	11-21-2000	Chun-Chu Archie Wu	
KM		6453360	09-17-2002	Muller et al.	
KM		6460105	10-01-2001	Jones et al.	
KM		6529515	03-04-2003	Raz et al.	
KM		6523109	02-18-2003	Stephan G. Meier	
KM		6640248	10-28-2003	Jacob W. Jorgensen	
KM		6625808	09-23-2003	David R. Tarditi	
KM		6738371	05-18-2004	Lawrence Ayres	
KM		6738378	05-18-2004	Tuck, III et al.	
KM		6813268	11-02-2004	Kalkunte et al.	
KM		6535905	03-18-2003	Kalafatis et al.	
KM		20010004755	06-21-2001	Levy et al.	
KM		20010005253	06-28-2001	Hiroshi Komatsu	
KM		20010052053	12-13-2001	Nemirovsky et al.	
KM		20010043610	11-22-2001	Nemirovsky et al.	
KM		20020016883	02-07-2002	Musoll et al.	
KM		20020049964	04-25-2002	Takayama et al.	
KM		20020054603	05-09-2002	Mussoll et al.	
KM		20020071393	06-13-2002	Enric Musoll	
KM		20020083173	06-27-2002	Musoll et al.	
KM		20040213251	10-28-2004	Tran et al.	
KM		20040172504	09-02-2004	Balazich et al.	
KM		20040015598	01-22-2004	Jin-Fun, Lin	
KM		09/608,750	NA	Nemirovsky et al.	
KM		09/602,279	NA	Nemirovsky et al.	
KM		5559970	09-24-1996	Vinod Sharma	
KM		6614796	09-02-2003	Black et al.	

Examiner
Signature

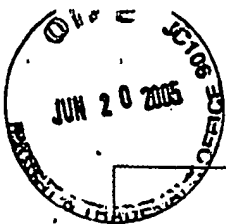
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Date
Considered

9/15/05

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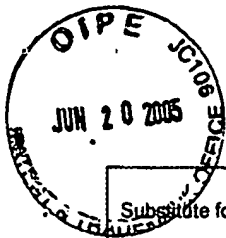
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				Application Number	09/881628
				Filing Date	06/13/01
				First Named Inventor	Enric Musoll
				Art Unit	2661
				Examiner Name	
Sheet	2	of	4	Attorney Docket Number	MIPS.0174-00-US

FOREIGN PATENT DOCUMENTS						
Examiner Initials *	Cite No.¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T²
		Country Code³ Number⁴ Kind Code⁵ (if known)				
Km	AA	WO 03/005645A2	06-25-2002	Sampath et al.		Yes
NON PATENT LITERATURE DOCUMENTS						
Examiner Initials *	Cite No.¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				T²
Km	BA	MELVIN ET AL., "Extended Instruction Set for a Packet Processing Applications," July 5, 2001, Disclosure Document #496559, USPTO				
Km	BB	MUSOLL ET AL., "Hardware Algorithm for Allocating and De-Allocating Consecutive Blocks of Memory," April 3, 2001, Disclosure Document #491557, USPTO				
Km	BC	MUSOLL ET AL., "Mechanism to Overflow Packets to a Software Controlled Memory When They Do Not Fit into a Hardware Controlled Memory," July 3, 2001, Disclosure Document #496391, USPTO				
Km	BD	MUSOLL ET AL., "Mechanism for Allowing a Limited Packet Head and/or Tail Growth Without Moving the Packet to a Different Memory Location," April 16, 2001, Disclosure Document #492429, USPTO				
Km	BE	MUSOLL ET AL., "Mechanism to Activate a Context When No Stream is Running in a Multi-Streaming Processing Core," April 16, 2001, Disclosure Document #492431, USPTO				
Km	BF	MUSOLL, ENRIC, "Functional Validation of a Packet Management Unit," May 18, 2001, Disclosure Document #429011, USPTO				
Km	BG	SAMPATH ET AL., "Mechanism to Un-speculatively Pre-fetch Instructions from the Thread Associated to a Packet," April 2, 2001, Disclosure Document #491527, USPTO				
Km	BH	YAMAMOTO, WAYNE. An Analysis of Multistreamed, Superscalar Processor Architectures. University of California Santa Barbara Dissertation. December 1995. Santa Barbara, US.				
Km	BI	YAMAMOTO ET AL. "Increasing Superscalar Performance Through Multistreaming." Parallel Architectures and Compilation Techniques (PACT '95). 1995				
Km	BJ	The PowerPC Architecture: A Specification for a New Family of RISC Processors. 2 nd Ed. May 1994. pp. 70-72. Morgan Kaufmann. San Francisco, US.				

Examiner Signature		Date Considered	9/15/05
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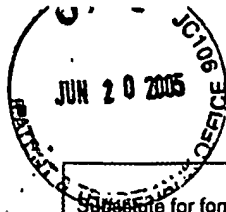
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				Filing Date	06/13/01
				First Named Inventor	Enric Musoll
				Art Unit	2661
				Examiner Name	
Sheet	3	of	4	Attorney Docket Number	MIPS.0174-00-US

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No.†	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²	
Km	BK	MC68020 32-Bit Microprocessor User's Manual. 3 rd Ed.. 1989. pp. 3-125, 3-126, and 3-127. Prentice Hall, NJ, US.		
Km	BL	POTEL, M. J. "Real-Time Playback in Animation Systems." Proceedings of the 4 th Annual Conference on Computer Graphics and Interactive Techniques. 1977. pp. 72-77. San Jose, CA, US.		
Km	BM	ARM Architecture Reference Manual. 1996. pp. 3-41, 3-42, 3-43, 3-67, and 3-68. Prentice Hall, NJ, US.		
Km	BN	ESA/390 Principles of Operation. IBM Online Publications Center Reference Number SA22-7201-08. Table of Contents and paras. 7.5.31 and 7.5.70. IBM Corporation. Boulder, CO, US.		
Km	BO	MC88110 Second Generation RISC Microprocessor User's Manual. 1991. pp. 10-66, 10-67, and 10-71. Motorola, Inc.		
Km	BP	DIEFENDORFF ET AL. "Organization of the Motorola 88110 Superscalar RISC Microprocessor." IEEE Journal of Microelectronics. April 1992. pp. 40-63. Vol. 12, No. 2. IEEE. New York, NY, US.		
Km	BQ	KANE, GERRY. PA-RISC 2.0 Architecture. 1996, pp. 7-106 and 7-107. Prentice Hall. NJ, US.		
Km	BR	DIEFENDORFF ET AL. "Altivec Extension to PowerPC Accelerates Media Processing." IEEE Journal of Microelectronics. Vol. 20, No. 2 (2000): pp. 85-95		
Km	BS	GRUNEWALD ET AL. "Towards Extremely Fast Context Switching in a Block Multithreaded Processor." Proceedings of EUROMICRO 22, 1996. pp. 592-599		
Km	BT	BRADFORD ET AL. "Efficient Synchronization for Multithreaded Processors." Workshop on Multithreaded Execution, Architecture, and Compilation. Jan-Feb 1998. pp. 1-4		
Km	BU	PAI ET AL. "An Evaluation of Memory Consistency Models for Shared-Memory Systems with ILP Processors." Proceedings of ASPLOS-VII, Oct. 1996: pp. 12-23, ACM, Inc.		
Km	BV	YOAZ ET AL. "Speculation Techniques for Improving Load Related Instruction Scheduling." 1999. Pages 42-53, IEEE.		
Km	BW	KESSLER, R. E. "The Alpha 21264 Microprocessor: Out-of-Order Execution at 600 MHz." August 1998.		
Examiner Signature			Date Considered	9/15/05

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				Filing Date	06/13/01
				First Named Inventor	Enric Musoll
				Art Unit	2661
Sheet	4	of	4	Examiner Name	
				Attorney Docket Number	MIPS.0174-00-US

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Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ¹	
Km	BX	DONALSON ET AL. "DISC: Dynamic Instruction Stream Computer, An Evaluation of Performance." 26th Hawaii Conference on Systems Sciences. Vol. 1. 1993. Pages 448-456.		
Km	BY	NEMIROVSKY ET AL. "DISC: Dynamic Instruction Stream Computer." ACM. 1991. Pages 163-171		
Km	BZ	MUSOLL ET AL. Mechanism to Prevent the Download of a Packet with Pending Writes Affecting Its Data. April 11, 2001. Disclosure Document #492430, USPTO		
Km	CA	UNGERER ET AL. A Survey of Processors with Explicit Multithreading. ACM Computing Surveys, Vol., 35, No. 1. March 2003. Pages 29-63.		

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